What is Claimed is:

1. A device for compensating a picture quality of a projection type display comprising:

a screen for displaying a picture projected from outside of the screen;

a video processing part for receiving, and converting an analog video signal into a digital video signal, and adjusting an offset and a gain thereof, for making the video signal displayable on the screen;

a sensing part for sensing the video signal from the video processing part and projected to a region of the screen;

a memory part for storing reference video information; and,

a microcomputer for projecting the reference video information stored at the memory part onto the screen through the video processing part according to a user's picture quality compensation command, or a preset algorithm, and controlling the video processing part so that a luminance and chromaticity of the picture are calculated according to an output of the sensing part, the luminance and the chromaticity of picture are compared to preset values, and a compensation is made according to a result of the comparison.

2. A device as claimed in claim 1, wherein the sensing part includes;

a focusing lens focused on a region of the screen, and

an optical sensor.

3. A device as claimed in claim 1, wherein the reference video information in the memory part includes black pattern video information and white pattern video information.

14

4. A device for compensating a picture quality of a projection type display comprising:

a screen for displaying a picture projected from outside of the screen;

an optical detection/transmission part for detecting an environmental light of the screen, and transmitting in a form of a UV ray;

a video processing part for receiving, and converting an analog video signal into a digital video signal, and adjusting an offset and a gain thereof, for making the video signal displayable on the screen;

a sensing part for sensing the video signal from the video processing part and projected to a region of the screen;

a memory part for storing reference video information;

a UV receiving part for receiving the UV ray signal from the optical detection /transmission part; and,

a microcomputer for projecting the reference video information stored at the memory part onto the screen through the video processing part according to a user's picture quality compensation command, or a preset algorithm, and controlling the video processing part so that a luminance and chromaticity of the picture are calculated according to an output of the sensing part, the luminance and the chromaticity of picture are compared to preset values, and a compensation is made according to a result of the comparison.

5. A device as claimed in claim 4, wherein the sensing part includes;

a focusing lens focused on a region of the screen, and

an optical sensor.

6. A device as claimed in claim 4, wherein the reference video information in the memory part includes black pattern video information and white pattern video information.

7. A device as claimed in claim 4, wherein the optical detection/transmission part is fitted to a region of the screen.

8. A device as claimed in claim 4, wherein the optical detection/transmission part includes;

an optical sensor for detecting an environmental light of the screen; and,

a UV ray transmitter for converting the detected environment light into a form of a UV ray, and transmitting to the UV ray receiving part.

9. A method for compensating a picture quality of a projection type display having a body and a screen, comprising the steps of:

(a) the body projecting, and displaying a first reference picture on the screen, detecting a displayed picture, and calculating a chromaticity of the picture according to a user's command, or a preset algorithm;

(b) increasing an offset value of a color signal in R/G/B color signals, which lacks chromaticity, until the offset value is within a normally allowable range if the chromaticity calculated for the first reference picture is within a correctable range, and outside of the normally allowable range;

(c) the body projecting, and displaying a second reference picture on the screen, detecting a displayed picture, and calculating luminance and chromaticity of the displayed picture; and,

(d) increasing a luminance output level of the second reference picture to an optimal luminance step by step to complete a luminance compensation, and decreasing a gain of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain is within a normally allowable range if the chromaticity calculated for the second reference picture is outside of the normally allowable range, thereby completing the compensation.

10. A method as claimed in claim 9, wherein the first reference picture is a black pattern, and the second reference picture is a white pattern.

11. A method as claimed in claim 9, wherein the first reference picture and the second reference picture are displayed along a width of a periphery of the screen, respectively.

12. A method as claimed in claim 9, wherein the first reference picture and the second reference picture are displayed in a part of a periphery of the screen, respectively.

13. A method as claimed in claim 9, further comprising the step of increasing an offset of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the offset reaches to a preset correctable range if the chromaticity calculated for the first reference picture is outside of the correctable range, thereby completing the compensation.

14. A method as claimed in claim 9, further comprising the step of putting the luminance output level back to a value before the luminance output level is increased in a case there is no actual luminance increase following the increase of the luminance output level for the second reference picture.

15. A method as claimed in claim 9, further comprising the step of decreasing a gain of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain reaches to a preset correctable range if the chromaticity calculated for the second reference picture is outside of the correctable range, thereby completing the compensation.

16. A method as claimed in claim 9, wherein the first reference picture is a minimum value of a digital data value, and the second reference picture is a maximum value of the digital data value.

17. A method for compensating a picture quality of a projection type display having a body, a screen, and an optical detection/transmission means for detecting an environmental light of the screen and transmitting to the body, comprising the steps of:

(a) the body projecting, and displaying a first reference picture on the screen, detecting a displayed picture, and calculating a chromaticity of the picture according to a variation of the environmental light of the screen;

(b) increasing an offset value of a color signal in R/G/B color signals, which lacks chromaticity, until the offset value is within a normally allowable range if the chromaticity calculated for the first reference picture is within a correctable range, and outside of the normally allowable range;

(c) the body projecting, and displaying a second reference picture on the screen, detecting a displayed picture, and calculating luminance and chromaticity of the displayed picture; and,

(d) increasing a luminance output level of the second reference picture to an optimal

luminance step by step to complete a luminance compensation, and decreasing a gain of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain is within a normally allowable range if the chromaticity calculated for the second reference picture is outside of the normally allowable range, thereby completing the compensation.

18. A method as claimed in claim 17, wherein the first reference picture is a black pattern, and the second reference picture is a white pattern.